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IS COMMUNITY MANAGEMENT AN EFFICIENT AND EFFECTIVE MODEL OF PUBLIC SERVICE DELIVERY? LESSONS FROM THE RURAL WATER SUPPLY SECTOR IN MALAWI

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SUMMARY

Reform of the rural water supply sector occurred widely in the 1990s, when many low-income countries replaced state-led service provision with decentralized community management in the hope of generating improved technical and financial performance. This article asks whether these expected benefits have materialized in practice, and whether community management has strengthened institutional capacity at local, district and national level. Findings from a mixed-methods study in four districts of Malawi show that both technical and financial performance under community management is weak. Maintenance is rarely done, repairs are slow and sub-standard, and user committees are unable to collect and save funds: Average savings are just 2% of expected levels. Despite these failures, community management has 'worked' for the state (and donors) as a means of offloading responsibility for public service provision. The article suggests elements of an alternative framework for rural water supply that would tackle the technical and financial failures of community management, and notes that efforts to promote 'local ownership' in development must be undertaken with care. © 2015 The Authors. *Public Administration and Development* published by John Wiley & Sons Ltd.

KEY WORDS—community management; water; sustainability; public service; reform

INTRODUCTION

Reform of the rural water supply sector occurred widely in the 1990s, when many low-income countries replaced state-led centralized service provision with decentralized community management (Schouten and Moriarty, 2003). Although decentralization and citizen participation have been important elements of many public sector reforms, the rural water sector is unique in the degree to which 'local ownership' has been institutionalized over the past 25 years. In the context of renewed attention to local ownership in public sector reform, exemplified by the call for 'doing development differently' and its emphasis on locally driven problem definition (Doing Development Differently: The Manifesto), it seems timely to reflect on whether the anticipated benefits of community management have materialized. This article addresses this question using data from a mixed-methods study of community-managed rural water supply in Malawi.

The article is organized as follows. The next section traces the emergence of community management as a reform intended to solve problems in the rural water supply sector and situates it in the wider context of public sector reform. The expected benefits of community management are outlined, along with some key critiques and concerns, leading to the research questions. I next introduce the case of Malawi and explain the design, methods and data sources used in this study. Following, I compare expected and actual performance under community management in three key areas: technical, financial and institutional performance. The findings show that service delivery under the community management model is considerably less impressive than theory suggests. I then discuss why the model persists despite these flaws, consider the implications for 'local ownership' and 'doing development differently', and make some tentative suggestions as to what an alternative framework might entail.

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BACKGROUND

Rural water supply

At the global level, recent decades have seen significant increases in access to improved water sources, and the Millennium Development Goal target on water was declared met in 2010 (UNICEF/WHO Joint Monitoring Programme, 2015a). However, major inequalities persist both between and within countries: Only two-thirds of people in sub-Saharan Africa have access to clean water, and the figure is considerably lower in rural areas (*Ibid.*) Furthermore, a significant proportion of 'improved' water sources do not in fact provide clean or safe water (UNICEF/WHO Joint Monitoring Programme, 2011).

In sub-Saharan Africa, most clean water is delivered via community-managed water points, either handpumps or (for a small proportion of users) piped gravity-fed systems (UNICEF/WHO Joint Monitoring Programme, 2015a). However, available figures show that many such water points do not work: Roughly one-third are non-functional across the continent (RWSN, 2009), and research from Tanzania suggests that one-quarter of new water points become non-functional within 2 years of installation (Taylor, 2009). This level of failure calls into question the long-term sustainability of the gains achieved through recent increases in investment in rural water supply.

Improving access to clean water, and increasing the sustainability of services, has been a development concern since at least the 1980s, the International Decade of Drinking Water Supply and Sanitation. At that time, serious problems with the then-current model of centralized service delivery were identified: Unresponsive bureaucracies failed to provide maintenance and repair, and an overstretched public purse was unable to afford the necessary expansion of services (Arlosoroff *et al.*, 1987; Briscoe and Ferranti, 1988). In response, the community management approach – 'the idea that communities should operate and maintain their own water supply systems' (Schouten and Moriarty, 2003: 1) – was developed and widely promoted. Through a series of conferences and communiques, including the 1990 Delhi Statement and the 1992 Dublin Principles, this approach rapidly came to dominate policy, practice and discourse in the rural water supply sector (Nicol *et al.*, 2012).

The core of the community management model is the Water Point Committee, typically a group of 6 to 10 villagers elected or otherwise delegated by their community to take responsibility for a water point such as a borehole with handpump, a protected spring, or a gravity-fed tap. The committee has a formal structure, with a Chair and treasurer, and is intended to be gender-balanced. Its responsibilities are both technical (maintaining and repairing the water point) and financial (collecting and saving community contributions so that funds are available for maintenance and repairs). Villagers contribute through regular payment of user fees, as well as through initial cash or in-kind contributions towards installation. Committee members are typically provided with a week's training when they are first appointed and then expected to take on permanent responsibility for management of the water point. The responsibility of the state in this model is limited to (i) facilitating installation of new water points, either directly or through coordinating development partners, and (ii) provisioning 'backstopping' support to committees.

Expected benefits of community management

Community management was expected to lead to more efficient and effective water services in two key respects. First, *better technical performance* would result thanks to more frequent maintenance and faster repairs by local technicians. Community-based mechanics would not face the barriers of distance and poor communications that contributed to slow response times from centralized maintenance teams; instead, they would be immediately on hand – and would have strong incentives to make repairs quickly because they themselves would also be users of the affected water point. Community managers would also be in a much better position to conduct the regular tests and preventive maintenance that are recommended to ensure continued water point functionality (Erpf, 2007).

Second, community management was expected to lead to *improved financial sustainability* in the sector. It was suggested that the financial burden of ongoing operation and maintenance of water supply services was too great for the state and that the only way to generate the funds needed was through user contributions (Briscoe and Ferranti, 1988). Users would have a direct interest in making such contributions as they would see a clear link

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between these fees and the continued functionality of their water supply; and regular maintenance would lead to reduced costs in the long term (Baumann, 2006).

The mechanism through which these benefits were to be delivered was *institutional reform*: a reconfiguration of the roles and responsibilities of actors through the public service delivery chain. Community management represented a radical decentralization of responsibility from paid experts to unpaid amateurs. The themes of decentralization and citizen participation were, of course, prominent far beyond the water sector during this period (Bardhan, 2002; McCourt, 2013; Faguet, 2014). Decentralization was one of the key ways in which development actors hoped that services could be made to work better for the poor (World Bank, 2004). Community management was thus a public sector reform that was 'all things to all people'. It appealed to those on the right of the political spectrum because it promised to shrink the state and deliver more for less; and it appealed to those on the left because it promised to transfer power to the people and deliver better outcomes.

Concerns and critiques

While there was certainly great optimism about the potential of community management in the early days (Narayan, 1995; Sara and Katz, 1997), critiques began to emerge fairly quickly and have since grown in volume. There is now a significant and critical practitioner literature (e.g., Schouten and Moriarty, 2003; Harvey and Reed, 2007; Lockwood and Smits, 2011) and considerable debate within the sector regarding the shortcomings of the model. Although a few practitioners (e.g., Lane, 2012) still claim that community management works, most assessments acknowledge that it has serious problems. In the words of one major sector initiative, 'the community management model has brought many benefits; however, in most countries around the world it has by and large failed to achieve the ultimate goal of reliable and sustainable water supply at scale' (Triple-S, 2009: 1).

On the *technical* side, critics have argued that maintenance is rarely done (Colin, 1999) and that there are often long delays in organizing repairs (Hope, 2015). Community mechanics may not have the skills required and indeed community involvement in technical decision-making may lead to sub-optimal choices (Khwaja, 2009). Lack of adequate supervision contributes to technical failures (Golooba-Mutebi, 2012), and indeed, research in Indonesia shows that community supervision is less effective as a quality control mechanism than professional audit and inspection (Olken, 2005). The capacity of communities to shoulder the burden of maintenance and repairs alone has been called into question; instead, they need to be effectively connected to local authorities (Kleemeier, 2000; Cleaver, 2012). Over the last decade, there has been a shift in discourse in the sector towards emphasis on water as a service, with key figures calling for increased professionalization of rural water supply (Lockwood and Le Gouais, 2011).

The transfer of ongoing *financial* responsibility to users has also been criticized, on two main grounds. First, user payments are generally insufficient to meet the actual costs of operation and maintenance (Carter *et al.*, 2010). While considerable effort has been invested in calculating financing requirements (WASHCost, 2012; McIntyre *et al.*, 2014), in practice, payment mechanisms are often inconsistent, and actual amounts collected are generally much lower than needed (Whittington *et al.*, 2008; Hope, 2015). Users are generally reluctant to pay for water, particularly if service levels are poor (Koehler *et al.*, 2015). There are also significant concerns regarding the effectiveness and equity impacts of user fees. Reliance on user financing in the water sector is inconsistent with the shift away from such fees in other public sectors such as health and education under the auspices of efforts to meet the Millennium Development Goals. In the broader development literature, there is a significant body of evidence showing that charging user fees reduces take-up of public health interventions such as insecticide-treated bednets or chlorine treatment of drinking water (Yates, 2009; J-PAL, 2011). This evidence suggests that users themselves do not value public health benefits as much as they 'should', and therefore, such public goods require ongoing subsidy (Kremer and Miguel, 2007). For example, there is clear evidence that, even at very low levels, user charges put people off using clean water (Null *et al.,* 2012).

Critiques of the *institutional* impacts of community management have also proliferated. A considerable literature has noted the dangers of localism, including the risks of elite capture (e.g., Cleaver, 1999; Mohan and Stokke, 2000; Botchway, 2001; Vollan, 2012). As Mansuri and Rao (2013) have observed, there is a fundamental distinction

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between induced and emergent participation. Indeed, community management is essentially a 'blueprint' approach to participation that is rooted in a 'Western "cultural idealization" of communities in low-income countries' (Harvey and Reed, 2007: 366). In reality, communities may not be able to fulfil the responsibilities allocated to them. Local government, meanwhile, has in many instances faced an increase in responsibilities without accompanying decentralization of resources or powers (Ribot *et al.,* 2006). As a result, local authorities in most low-income countries are critically hampered by lack of capacity, characterized by low skills and few resources (Lockwood and Smits, 2011). This analysis suggests that community management may in fact weaken institutional capacity to deliver public services by placing excessive burdens on communities, and it simultaneously hollows out local government capacity.

Research questions

Despite these critiques, community management remains the option of choice for governments of low-income countries such as Malawi (GOM, 2005; for the Uganda case, see GOU, 1999). For example, Malawi's National Water Policy emphasizes 'demand responsive and demand-driven approaches, beneficiary participation and empowerment' (GOM, 2005: 6) – although in the five pages of the Policy that list the responsibilities of 11 different types of stakeholders, there is no section that explicitly outlines the role of 'communities'. This highlights the extent to which the assumptions of community management are so deeply institutionalized that it is not felt necessary to articulate them.

Community management also remains central to donor policy and practice. For example, (UK) Department for International Development (DFID's) current water strategy in Malawi emphasizes that 'User contributions both technically and financially are an important element of ensuring sustainability of WASH services' (DFID, 2012a: 12), and 'for point sources mainly boreholes and rural piped schemes, the principle of "community management" will apply with beneficiaries meeting fully the cost of operation and maintenance' (*Ibid.*: 23). In wider DFID policy statements, community management is taken for granted rather than explicitly justified (DFID, 2015), and it is striking that recent reviews have paid scant attention to the question of whether this is an effective delivery model (DFID, 2012b; DFID, 2013). WaterAid, a prominent non-governmental organization (NGO), explains that they promote 'technologies that can be operated, managed and financed by communities, with assistance from local government and service providers' (WaterAid, 2015) – thus, although the organization emphasizes the importance of local government support, the idea that users should manage and finance service delivery themselves is not really questioned.

Community management can therefore be seen as an example of a highly successful public sector reform, in the sense that it has been thoroughly internalized by governments and their development partners. However, the concerns noted previously suggest that questions remain about the effectiveness of the model:

- Does community management generate the expected levels of technical and financial performance?
- Has community management strengthened institutional capacity at local, district and national levels?
- Overall, is community management an efficient and effective model of public service delivery?

The rest of this article addresses these questions using data from a multi-district study in Malawi.

METHODS

Study site: Malawi

Malawi is an ideal location in which to research the community management model, for several reasons. Community management has been the dominant framework for rural water supply in Malawi for the past two decades (GOM, 2005), and the assumption that it will lead to sustainability is deeply ingrained in the minds of government actors and development partners alike (Soublière and Cloutier, 2015).

A high proportion of the population (84%) are rural dwellers, and the country is poor. Gross national income per capita in purchasing power parity terms was $780 in 2014, the third lowest in the world after the Central African Republic and Democratic Republic of the Congo (World Bank, 2015); Malawi's rating on the Human Development Index in 2013 was 0.414, placing Malawi 174 out of 187 countries (UNDP, 2014). Nonetheless, Malawi has made

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very considerable progress in improving access to clean water in recent years: Access to improved water sources among the rural population has increased from 34% in 1990 to 86% in 2015 (UNICEF/WHO Joint Monitoring Programme, 2015b). At the same time, the water sector faces many problems (Lockwood and Kang, 2012), and despite significant investment in new installations and standardization on the Afridev pump type, water point functionality levels overall remain similar to elsewhere in Africa, at around 70% (WaterAid, 2005; RWSN, 2009; GOM, 2012).

In common with many low-income countries, Malawi adopted a number of policy reforms in the 1990s and 2000s in line with advice from international financial institutions, with effects including large reductions in the civil service payroll (Anders, 2014). The formalization of community management as the central plank of government water policy took place during the same period, as did decentralization. Malawi adopted a decentralization policy in 1998, but after elections in 2000, the process was put on hold (Chiweza, 2010) and remained frozen until 2014. Local governments across the country face significant challenges of capacity and commitment (O'Neil *et al.*, 2014). In some public service sectors (e.g., health and education), there has been a relatively significant degree of devolution of powers together with accompanying resources, but district water offices have been starved of funds for many years. The handover of responsibility to communities has thus taken place within a wider context of (i) stalled decentralization and (ii) marginalization of the water and sanitation sector in particular.

Data sources, analysis and limitations

The study used a mixed-methods cross-sectional design. Survey and observational data were collected at 679 water points and from 276 users and committee members ('Managers') in 24 randomly sampled VDCs (Village Development Committees – group villages) in eight TAs (Traditional Authorities – sub-districts) in four purposively sampled districts, during fieldwork in 2011 and 2012. Two of the districts (Mangochi and Thyolo) had high levels of reported water point functionality, and the other two (Ntcheu and Chikhwawa) had low levels of reported functionality. In-depth interviews were also conducted with 26 purposively sampled key informants at national ($n = 15$), district ($n = 10$) and area mechanic ($n = 1$) levels. The primary data were triangulated with quantitative analysis of the national water point database, which covers roughly 50 000 cases, and qualitative analysis of blog posts by 28 international volunteers with the NGO Engineers Without Borders (EWB), working in District Water Offices. Table 1 summarizes the data sources. Quantitative data were analysed with SPSS using a range of statistical tests, and qualitative data were coded in NVivo using both structured and emergent coding. In the text as follows, quote marks indicate quotes from respondents (often in translation), and brackets indicate source codes.

Despite careful design, data limitations undoubtedly affect the validity and reliability of the findings to some extent. Sampling was performed on the basis of the best available data on functionality, but this was often subsequently contradicted in the field. For example, in Thyolo district, the secondary data suggested that functionality was 50% in TA Nsabwe and 85% in TA Chimaliro, but we found it to be 70% in Nsabwe and only 64% in Chimaliro. In the survey responses, the unreliability of much self-reported data was highlighted by the comprehensive nature of the survey and the practice of triangulating between two or three respondents per water point: Respondents frequently contradicted themselves or their neighbours. These challenges certainly do not invalidate the findings, but suggest that all such data must be interpreted with care.

Table 1. Data sources for this study

	Primary	Secondary
Quantitative	Surveys: 177 users, 99 managers, 338 surveyed water points, 341 listed water points. Dataset has 955 cases, 266 variables.	2005 water point database: 49 517 cases, 20 variables
Qualitative	Survey notes: 177 users, 99 managers, 338 water points. Interviews with 26 respondents: six local government, five national government, six donors, nine NGOs, one area mechanic	Blogs: 28 sources, 739 posts, spanning September 2008–February 2013

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FINDINGS

Technical performance

Our first question asks whether community management generates the expected levels of technical and financial performance. On the technical side, community management is expected to be characterized by regular maintenance and rapid, high-quality repairs, using locally held stocks of spare parts and local skills. However, our data suggest that maintenance is almost never done, and repairs are slow and sub-standard.

Maintenance

Over half of the Managers (51%; $n = 49$) reported dismantling their water point in the last 12 months, although in only 14 cases was this done without being prompted by a breakdown. Similarly, although 61% ($n = 60$) reported dismantling the water point to check the wearing parts, in only nine cases was this done for a water point that had never experienced breakdown. It thus seems that true *preventive* maintenance is relatively rare. Indeed, it may well be that maintenance frequency is over-reported: for example, M48 reported maintaining his water point just 'last month' – for the first time since installation 8 years earlier. This seems more likely to be an example of courtesy bias than fact. Most water points are like W051: 'they never do preventative maintenance; they only do things to it if it is broken'. As one District Water Officer observed: 'we train the people but … most of them after training they have not touched the borehole' (L3).

Indeed, this reluctance to do preventive maintenance is understandable, because many well-built water points, especially boreholes, function for many years with no problems. For example, W096, a borehole installed in 2003, has never broken down; consequently, the Managers have never checked or maintained it. W051 is another example: installed in 1998, its first breakdown was 11 years later in 2009. For those 11 years, the community did no maintenance. The same thing was reported at several other boreholes (W092, W259, W260 and W266). Cases such as these suggest that the 'standard model' of dismantling and checking the pump every 3 months may often be unnecessary, especially when water points are well-constructed in the first place. Rapid reactive repair capacity is more important.

Breakdowns, repairs and spares

Breakdowns are frequent, and often long-lasting – but there is significant variation by district. In TA Mbwana Nyambi in Mangochi District (where almost all the water points were installed by the high-quality German GITEC project roughly 7 years earlier), fully 42% of the water points had never broken down. The figure was much lower elsewhere: 21% in TA Masache in Chikhwawa District and 8% in TA Chimaliro in Thyolo District (where theft is a particular problem, affecting more than half of the water points in all three of the VDCs studied). Overall, 25% of boreholes had never experienced a breakdown, and the vast majority of these were in Mangochi. The overall picture is clear: A significant proportion of water points never break down, while others – probably poor-quality installations in the first place – limp along from repair to repair, often with long hiatus in between.

Repairs under community management are often slow – mean reported breakdown duration was 136 days in our survey – and sub-standard. One example is the use of an improvised U-seal made out of an old 'slipper' (plastic flipflop), reported at several water points (e.g., W100), even though new U-seals are cheap and widely available in trading centres. A second example is the practice of fixing broken rods by 'tying them with string', reported several times (e.g., in VDC 2B3). These practices, and the (rather more effective) use of welding to fix broken rod connections, are not due to inaccessibility of spares; in VDC 2B3, the district capital is only 30 minutes away down a major tarmac road with frequent vehicles. Instead, they reflect unwillingness or inability to pay.

Few Committees keep spares in stock, and none keeps any record of stocks of spares, nor any log of maintenance or repairs. Although a 'full set' of spare parts is often provided by installers, a majority (68%) of Managers reported having no spares in stock at all. Some committees said they had spares in stock but did not know what they were (e.g., W284). In fact, it is arguably quite inefficient for each committee to hold stocks of multiple spares that many of them will not need for several years. Spares may be lost, or converted into cash and 'eaten', or simply

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given away to users of a neighbouring water point if needed. The use of stocks of spares to make rapid repairs (as at W288, a GITEC borehole whose two breakdowns had both been repaired within 2 days using parts that the committee had in stock) is very much the exception rather than the rule.

Skills

The idea that users should be responsible for basic repairs – with support from Area Mechanics if need be – is clearly internalized in communities: Only 1% of respondents felt that anyone else (e.g., the District or NGOs) should be responsible for repairs. However, there is some dissonance between these responses and what is evident in practice, including considerable reliance on politicians as a source of funds for repairs. There is also a major capacity gap in the committees. Despite training, many members struggle with the most basic technical aspects of their role. For example, at W211, the ten committee members were trained in 2009 by the installer for 6 days. Yet, when the borehole needed a replacement bobbin (a simple job), they could not fix it: 'When they tried themselves, it was not sweet'. They were unsure what a U-seal looks like and unable to identify a bush bearing. A similar situation was found at W768, where the committee believed that the borehole breakdown was due to 'rubbers' (i.e., the U-seal, a very simple problem to fix) – but had not actually attempted to open the borehole to find out. At W316, a high-quality GITEC borehole, a User reported: 'they were trained but they fail to maintain the borehole. It took the area mechanic to maintain it and since then it has not been dismantled because they are afraid that they may fail again' (U55). M52, Chair of another water point, said 'we don't maintain it because we don't know how the borehole works'.

Some Managers are startlingly uninformed: M32 is Chair of her committee, which she reports as 'active' – but she does not know when they last met or who came to the meeting, nor who the treasurer is; while M74, another Chair, 'cannot mention anything on the parts of the borehole' (i.e., she knows nothing about it). In many cases (e.g., W497, W501 and W513), committees were reported to be 'trained, but not active'. Explanations for loss of committee capacity include migration (for marriage and for work) and death (e.g., M52). A respondent at W495 spoke for many when he observed that 'we were trained but we have no skills'. An Engineers Without Borders (EWB) fellow working on a borehole rehabilitation project noted many water points 'only had a few broken parts that could easily have been replaced if the Water Point Committee responsible for the well had taken action' (B16). But even where skills are available, it often takes weeks or months to repair a water point, because it takes time to collect funds to pay for spare parts. However, and rather surprisingly, the data show no statistical relationship between existence of a (reportedly) active committee, and water point functionality.

Given the very weak level of technical skills within user committees, the role of Area Mechanics (individuals with additional training) is perceived as critically important by national and local government staff (L3). Such mechanics are not universally available – there was an active network of them in only one of the four districts we studied – but elsewhere there are often 'unofficial' Area Mechanics, providing an important intermediate level of technical support to village-level Managers. However, their services are only available to users who can pay. Additionally, there are concerns in some places about the effects of equipping people with such skills. One District Water Officer despaired: 'There is a lot of vandalism. We have trained so many people and now they are able to [remove] these small bolts and move these parts and take them to other parts and sell them. So we are training even robbers' (L3). In summary, therefore, community management does not always ensure that the required skills are locally available; and even when it does, there may be unwanted side-effects.

Financial performance

On the financial side, community management is expected to be characterized by users collecting and saving adequate funds to pay for maintenance and repairs, thus relieving the state (and/or donors) of the burden of recurrent costs. However, this study suggests that users face major difficulties in collecting and saving funds and that this is a major determinant of non-functionality.

In Malawi, users of community-managed water points were typically expected to pay MWK 50 per month – a figure that should (for average communities and average water points) yield enough income to cover maintenance

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and repairs, spread over several years. In our sample, 36% say they pay monthly, 9% pay yearly, 27% pay occasionally and 25% never pay at all. One-quarter of respondents indicated that some households (normally the elderly) are exempt from payment. Among those respondents who indicate that the community does pay into a water point maintenance fund, 51% says that 'all or almost all' of those who are supposed to pay do indeed pay, while 31% says that 'about three-quarters' do. Twenty-six percent of respondents say that there is no penalty for non-payment, while 48% indicates that non-payers are banned from using the water point. The responses therefore paint a picture of payment systems that are not fully consistent, but not completely broken down either.

However, further questioning suggests a more complex situation. Because most respondents report making regular or occasional payments, in theory, most committees should have significant amounts saved for maintenance and repairs. We have data on this question from 86/99 Managers, of whom 24 (28%) did not know how much was in the Maintenance Fund, 19 (22%) said there was nothing and 8 (9%) said the question was not applicable (presumably because there is no such fund). Among the 54 Managers who knew how much was held in the Maintenance Fund, the median amount saved was MWK 1150 (mean 2169, mode 0, range 0–11 700). MWK 1150 was worth about £2.75 in July 2012. To put this another way, only 11 out of 86 Managers reported that enough had been saved to buy a single replacement rod costing MWK 4000.

Another way to examine the adequacy of the community management financial model is to compare actual with expected savings (calculated based on the number of households using the water point, the frequency of payments, the size of payments, the age of the water point and the amount previously expended on maintenance and repairs). We were able to do this for 30 cases in our dataset. In virtually every case, the discrepancy is enormous; in only three cases does the Maintenance Fund hold more than one-fifth of the amount it ought to, and in the majority of cases, it holds only 1% or less. On average, the amount saved is just 2% of what it should be. The sheer scale of this variance strongly suggests that the financial assumptions underpinning the community management model are in serious need of revision: Communities are clearly unable to collect and save sufficient funds to adequately maintain and repair their water points.

Responses suggested that there are two broad reasons for this: (1) money is not collected in the first place – because people are too poor to pay, because income is very seasonal or because contributing to this fund is less urgent than other expenditure, (or ;) and (2) money is collected, but is badly managed or misused – because it is difficult to keep pots of money separate, because the Village Head asks for it or because the committee members 'borrow' it for business or for emergencies. In practice, the latter often leads to the former, because if people suspect that the fund is misused (as was indeed reported by a large number of respondents), they stop contributing. Numerous examples were given by respondents of committee members misusing funds intended for maintenance and repair of the water point (e.g., U19, U26, U27, M20, M23, U43, U47, M37, M38, M48, W318, W495, W499, M62, W527, M63, W536, W553, U108, U117, U123, M84, U144 and U162). Typical comments included the following: 'Some people don't contribute because people in the past contributed and the committee misused the cash' (U19); 'People refuse to contribute because they don't believe the committee, they think that they use the cash for their families' (M23); 'the committee eats the money … they misuse the funds and buy their own needs' (U47); 'The old committee took the money for the borehole and made their business with it' (W553). This lack of trust means that finances are managed on an ad hoc basis, with money being collected only when urgently needed (i.e., after a breakdown) – a process that may take a long time. Essentially, the 'just in case' financial model that underpins the theory of community management is a fiction.

Institutional performance

The evidence presented previously shows clearly that community management, as a public sector reform, has not led to the expected benefits in terms of technical and financial performance. Instead, a picture emerges of a rural water supply sector in which performance 'limps along': maintenance is absent and repairs are 'make do and mend'; savings are almost non-existent, and funds are instead collected on an ad hoc basis after breakdown occurs. What about the institutional effects of the model – has community management strengthened institutional capacity at local, district and national level?

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Local capacity

As already noted, water user committees struggle to perform both their functions – technical and financial – to expected standards. Indeed, many are essentially dormant most of the time, and are only reconstituted 'as needed' – that is, when the water point breaks down. Committee membership naturally declines, through people moving away or dying, and those that remain gradually lose enthusiasm. Respondents identified several reasons why committees may feel there is no need to meet, or do maintenance, or collect money: if the water point functions well for months or years without any inputs; if there are other people who seem likely to take responsibility if things go wrong, such as an Member of Parliament (MP) or NGO (N2, L6); and/or if there is no external agent monitoring them (D1). Overall, a clear picture emerges of the fragility of the basic building block of community management, the user committee. The sad irony is that such committees were supposed to be a sustainable management solution to the problem of non-functional technical hardware – but they seem to be equally, if not more, prone to failure.

District capacity

Districts have two key functions in community management: facilitating investment (often undertaken by NGOs, but sometimes directly by districts) and providing post-construction support (PCS) to user committees, which has been identified as a key determinant of functionality (Whittington *et al.,* 2008).

In our study, Managers reported generally very low levels of PCS: 71% received none from the installer, and 57% received none from any source (although levels were higher in Mangochi district). Of those that received PCS more than once, less than half (8/17) were satisfied; and cross tabulation suggests there is little relationship between such support and functionality: 77% of water points that had received 'good' PCS (two or more visits) were functional, but so were 72% of those where no PCS was received at all. A clear pattern emerged: Support is not usually requested; and even if it is, it is usually not forthcoming. Most communities with a broken-down water point had not reported it to anyone outside the village, even though this is supposed to be one of the roles of local government structures. Even when communities do report breakdowns and request assistance, support is usually not forthcoming (W568; W570). Politicians were in fact mentioned more frequently than any other source of external support, but their input tends to be concentrated at the time of election campaigns – with one or two honourable exceptions (VDC 4A3).

District Water Officers are also supposed to coordinate investment in the rural water sector, directing NGOs to the areas of greatest need and supervising installations. However, in practice, they are often bypassed: Our research found numerous examples of water points that had been installed with no district consultation (for example, by well-meaning church groups). Districts have to take on support responsibilities for such installations even when they had no involvement in the decision to install. They are also supposed to supervise drilling, but are entirely dependent on the installers for transport (and 'allowances') to facilitate such supervision.

All Districts Water Officers report that they are hamstrung by lack of staff and lack of operational funding: 'We don't have enough resources' (L2). They receive very limited funds from central government – barely enough to cover office expenses, let alone provide support to communities. As one explained: 'This month we got 59,000 and we spent 35,000 on annual rental for our postal box. Then we pay water bills, electricity bills, we buy reams of paper, then the money is finished' (L5). The detrimental effect on their ability to fulfil their responsibilities was captured by an EWB Fellow: 'More times than I can count, I have come in to the office just to see the whole staff sitting outside under a tree playing checkers or *bawo* all day – not because of laziness, but instead because there is no funding for fuel, motorcycle maintenance, or some other necessary item to do their work. Village meetings should be attended by our staff but are not, borehole drillings should be overseen by our staff but they aren't, and so on and so forth – all due to lack of funding' (B20). Similar problems of District inactivity were reported by other EWB Fellows (B15, B17 and B13), but not always attributed simply to lack of funding. Other factors noted included an unwillingness to engage with 'capacity-building' (B15 and B24) and the 'allowance culture' whereby staff appeared willing to undertake activity (such as field visits) only if they received additional financial incentives beyond their salaries (B17, B6, B11 and B27). These observers suggest that District staff do not just lack funding, but also (in some cases) motivation.

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In summary, the capacity of District Water Offices to fulfil their roles of support, coordination and supervision is very limited. Part of the problem relates to lack of suitable staff and absence of performance management, but a significant part relates simply to lack of funding. Under community management, control over capital expenditure remains largely centralized, while funding for operation and maintenance is removed from the government budget entirely. Decentralization has left the districts with responsibilities, but no resources.

National

At the national level, two main trends can be observed: (1) the concentration of funding in large projects (urban water supply and, to a more limited extent, gravity-fed schemes) and (2) the marginalization of the water Ministry.

Although investment in the sector increased from 1% of the government budget in 2005/2006 to 3% in 2010/2011, this remained only a fraction of the allocation to other sectors, including education and health (16% each) and agriculture (8%) (GOM, 2012). Furthermore, only a tiny proportion of the water budget is devoted to rural water supply. More than half of the 2010/2011 water budget was allocated to the National Water Development Programme (focused on urban supply and large piped schemes), and most of the remainder went to irrigation, leaving only about 1% of the budget for borehole construction in rural areas (GOM, 2012: 14) – despite the fact that 85% of the population are rural, and mostly dependent on boreholes.

At the same time, the Ministry appears to have become increasingly politically marginalized. In recent years, it has experienced frequent reorganization and renaming. In the most recent reshuffle, it lost Ministerial status and has been downgraded into a Department and absorbed into the Ministry of Agriculture.

Researchers have observed that, although there are considerable challenges facing delivery of public services in all sectors in Malawi, the water sector is particularly weak (O'Neil *et al.*, 2014). It seems plausible that the mode of service delivery in the sector may be linked to this fact, because it 'outsources' ongoing service provision to users themselves. Nonetheless, interviews in mid-2015 with individuals working in the Department of Water demonstrated that they remain strongly committed to community management. The next section discusses why this may be.

DISCUSSION

The key findings of this study are clear: Community management does not work well for communities. The findings confirm many of the concerns and critiques outlined earlier in this paper (e.g., Mansuri and Rao, 2013) and help explain why community management is the least preferred management option for water users (Hope, 2015). Nonetheless – and despite its undermining effects on local and national government outlined previously – community management endures because at some level it does indeed 'work' for the state (and donors). Specifically, it enables them to abdicate long-term responsibility for service provision. The degree to which this is found to be useful can be seen in the emphasis placed by officials at all levels on the failures of communities and 'lack of local ownership' as the explanation for problems in the sector.

Implications for doing development differently

The commitment in the development community to 'local ownership' remains strong, and the principle attractive. The first three of the six 'doing development differently' manifesto principles emphasize local problems, local ownership and local convenors. But questions remain as to how these principles, and problem-driven iterative adaptation (Andrews, 2013), would help solve the challenges of community management, and how to distinguish between the more and less positive aspects of local agents and structures.

This study highlights the need to take a nuanced approach to identifying 'the local', because different groups define problems in different ways. For example, Ministry officials tend to identify the root cause of non-functional water points as 'lack of ownership by the users', and propose solutions involving more training and exhortation of users to 'fulfil their responsibilities' under community management. However, if the perspectives of the Districts and the users themselves are taken as a starting point, alternative analyses may emerge: District staff might suggest

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that the core problem is lack of funding for their support and supervision functions, and users might highlight problems such as frequent breakdowns, long repair times and unaffordable costs. Different solutions might emerge accordingly. Perhaps it is unnecessary (even wasteful) to train so many amateur committee members, many of whom will never put their training into practice, when all that is really needed is a handful of mechanics in each TA with really good technical skills plus easy access to parts. Perhaps it is both unrealistic and unfair to expect users to bear all recurrent costs, and donors should instead allocate a small proportion of their budgets to pay these area mechanics, via the districts, on the basis of their performance in improving functionality.

Problem-driven iterative adaptation and doing development differently focus on problem definition as the critically important first step and imply that the key 'local' stakeholders are people working in local and national government of the country in question. But might problems be mis-specified by key stakeholders? In this study, almost all key stakeholders interviewed at the national and district levels (government officials, donors and NGOs) identified the problem as 'lack of local [meaning community/village] ownership'. When pressed further, assumptions articulated included 'communities are lazy', 'our people have become dependent' and 'the villagers need more training to understand their responsibilities'. As already discussed, both the state and donors have strong incentives to identify the problem as 'the communities' rather than the community management model itself. If identification of the problem is constrained because the stakeholders have an interest in laying blame elsewhere, the problem-solving process is hamstrung from the start. Perhaps a first step towards addressing this would be to ensure that any 'scapegoats' (such as water point users and managers, in this case) are themselves meaningfully included in the problem identification process.

The shape of 'locally led reform', then, will depend critically on how the problem is framed, and by whom. Simply 'being local' does not automatically translate into a clearer ability to define problems. In this case, Malawians working in the Ministry tend to display a very firm allegiance to the theory of community management, even when presented with clear evidence of its shortcomings in practice. Thus, reform efforts that are rooted in 'locally driven' problem identification must give careful thought to what sort of 'local' voices are being amplified.

What might an alternative framework look like?

The critique presented here does not claim that community management does not work at all; on the contrary, I have emphasized the way in which it enables rural water supply to 'limp along' from breakdown to breakdown, maintaining overall a fairly steady (if less than impressive) level of functionality, around 70%. But this article does argue that community management works much less well than it is supposed to and should be reformed. Two sets of ideas seem to hold potential as a basis for an alternative framework.

The first is the idea of 'working with the grain' of existing socially embedded institutions, which draws on the ideas articulated by Kelsall (2008) and Levy (2015), as well as Cleaver (2012) on institutional bricolage. This study highlights a number of ways in which community management is reshaped by such institutions, such as the phenomenon of village heads controlling user committees, and the flurry of politician-funded water sector activity that precedes elections. One approach to revising community management could involve engaging more wisely and explicitly with existing local rules of the game, such as exploring ways to involve chiefs more positively in water point management, or considering how to shape incentives to increase the political salience of water supply beyond election periods (Batley and McLoughlin, 2015).

The second theme is the need to refocus away from the local and pay more attention to questions of professionalization, upward accountability and indeed centralization. Research on public services in Malawi and elsewhere has shown that top-down performance discipline is a key determinant of effective service delivery (Cammack and Kanyongolo, 2010; Booth, 2012). Elements that are needed in an alternative post-community management framework include the following: (i) increased funding for recurrent costs; (ii) directing more funding to and via the districts; (iii) paying for outcomes (sustained delivery of clean water) rather than outputs (numbers of water points constructed); (iv) increased professionalization of technical tasks, with maintenance and repair by area mechanics rather than users; and (v) closer supervision, inspection and audit of installations.

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CONCLUSIONS

This article sets out to ask what might be learned from one very particular type of public sector reform, community management of rural water supply. Three key lessons have emerged: (1) community management has 'worked' for the state (and donors) as a means of offloading responsibility for public service provision; but (2) it has *not* worked for communities in terms of delivering the expected technical and financial benefits. Therefore, (3) efforts to promote 'local ownership' in development must be undertaken with care.

We have seen that community management has been an effectively introduced public sector reform: It has replaced, wholesale, the previous mode of service delivery and retains enduring strong support among government officials and, to a lesser extent, donors. In no other public service sector has decentralization been pursued to such an extreme. We have also seen that the expected benefits of the model – improved technical performance and improved financial sustainability – have not been realized in practice. In this sense, community management cannot be called a 'success', because it has imposed unrealistic management burdens on users. Users do not fully value the health benefits of clean water, and they face serious collective action problems in managing water supplies themselves. As a result, performance is sub-optimal: Community management is not an efficient or effective framework for public service delivery.

The article has also highlighted the risks of placing too much emphasis on 'local ownership'. Too often this can be a convenient fig-leaf for abdication of responsibility by those with power and resources. This is not a reason to automatically reject 'localist' approaches, but it does suggest a need for care in pursuing them. In fact, in rural water supply, the pendulum arguably needs to swing in the other direction, towards a more 'universalist' approach, characterized by more centralization, standardization, professionalization and upward accountability.

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